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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,680	09/23/2003	Lewis M. Nashner	469/132	1246

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EXAMINER

LAU, TUNG S

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,680

Applicant(s)

NASHNER, LEWIS M.

Examiner

Tung S. Lau

Art Unit

2863

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4,6-11,13-16 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,4,6-9,11,13-16 and 25 is/are rejected.
- 7) ☒ Claim(s) 10,26 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/18/2005 has been entered.

Claims Objection

2. Claims 6, 7, 8, 9, 10 and 11 are object as not a proper preceding claims, correction is required (see MPEP 608.01(n)).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 3, 4, 6, 25, 13, 6, 7, 8, 9, 11, 16, 14 and 15 are rejected under 35

U.S.C. 103(a) as being unpatentable over Eide (U.S. Patent Application

Publication 2004/0087863) in view of Mrozack Jr. et al. (U.S. Patent 4,703,658).

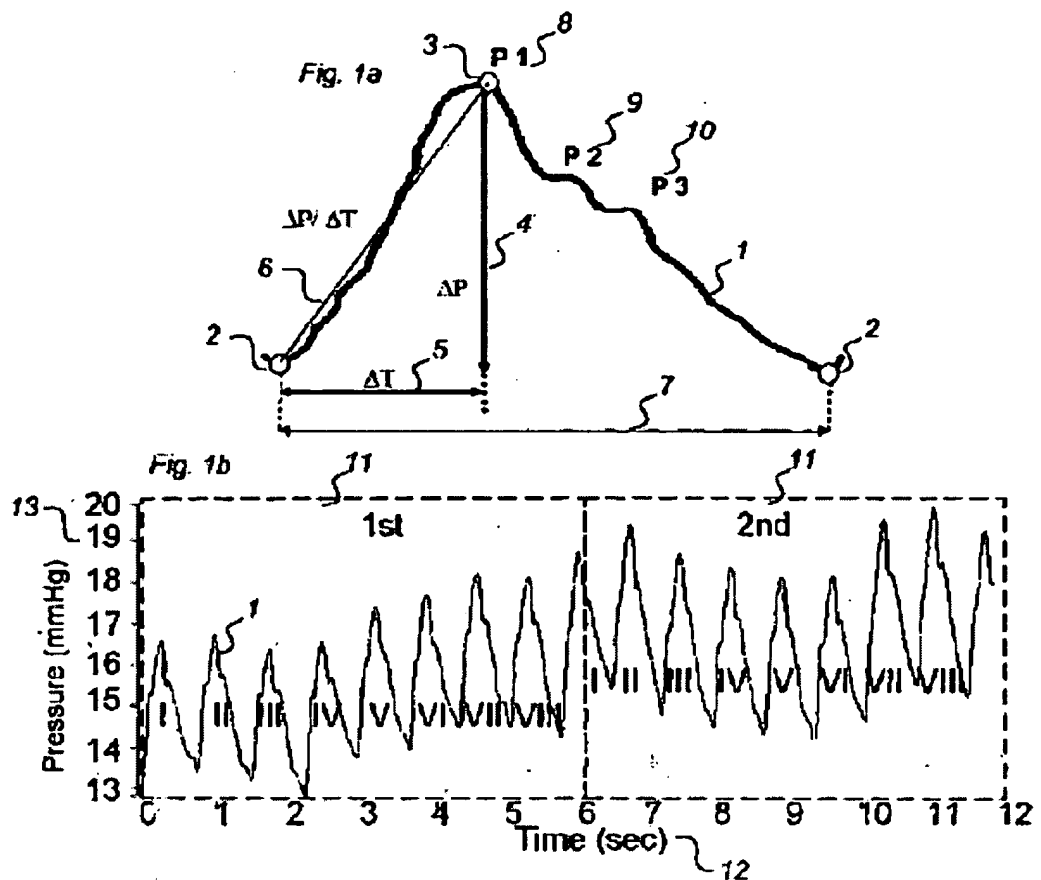
Regarding claim 3:

Eide discloses a system for detecting errors in balance related screening tests, the system comprising for measuring force to determine a quantity related to a stability factor of a balance task performed in trials by a subject under a plurality of distinct sensory conditions (page. 22, claim 1); and a computation device in communication (fig. 12a, unit 49), the computational device (i) receiving the quantity related to the stability factor for each trial(fig. 12b) , (ii) determining a rank order for the quantities, each quantity for each trial being associated with a rank (page 6-7, section 0063-0068), and (iii) determining if any of the ranks associated with a given one of the trials has fallen outside a reference range associated with the given trial performed under error-free conditions (page 6-7, section 0063-0068).

Regarding claim 13:

Eide discloses a method for detecting a screening-test error (abstract), the method comprising: measuring at least one performance parameter related to at least one screening-test task performed by a subject (page 1, section 0009-0010); and calculating at least one performance statistical quantity characterizing the measured performance parameter (page 1, section 0009-0010); and comparing the at least one performance statistical quantity to at least one reference statistical quantity associated with an error-free screening test (page 6-7, section 0063-0068), wherein:

(i) the screening-test task is a balance task (page. 22, claim 1);



(ii)

(iii) the at least one performance parameter is vertical force applied to a force(abstract);

(iii) the at least one performance statistical quantity corresponds to a moving window average value for total vertical force applied (page 6-7, section 0063-0068); and

(iv) comparing the at least one performance statistical quantity to the at least one reference statistical quantity includes determining whether the moving window average value deviates from a constant value by a predetermined threshold value (page 6-7, section 0063-0068).

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Regarding claim 14:

Eide discloses a method for detecting a screening-test error (abstract), the method comprising: measuring at least one performance parameter related to at least one screening-test task performed by a subject (page 1, section 0009-0010); and calculating at least one performance statistical quantity characterizing the measured performance parameter: and comparing the at least one performance statistical quantity to at least one reference statistical quantity associated with an error-free screening test (page 6-7, section 0063-0068), wherein

- (i) the screening-test task is a balance task (page. 22, claim 1);
- (ii) the at least one performance parameter force (page 1, section 0010);
- (iii) the at least one performance statistical quantity corresponds to an average of a mathematical derivative of the total vertical force applied to the force (page 6-7, section 0063-0068); and
- (iv) comparing the at least one performance statistical quantity to the at least one reference statistical quantity includes determining whether the average deviates from zero by a predetermined threshold value (page 6-7, section 0063-0068).

Regarding claim 15:

Eide discloses a method for detecting a screening-test error, the method comprising: measuring at least one performance parameter related to at least one screening-test task, performed by a subject (page 1, section

0009-0010); and calculating at least one performance statistical quantity characterizing the measured performance parameter; and comparing the at least one performance statistical quantity to at least one reference statistical quantity associated with an error-free screening test (page 6-7, section 0063-0068), wherein:

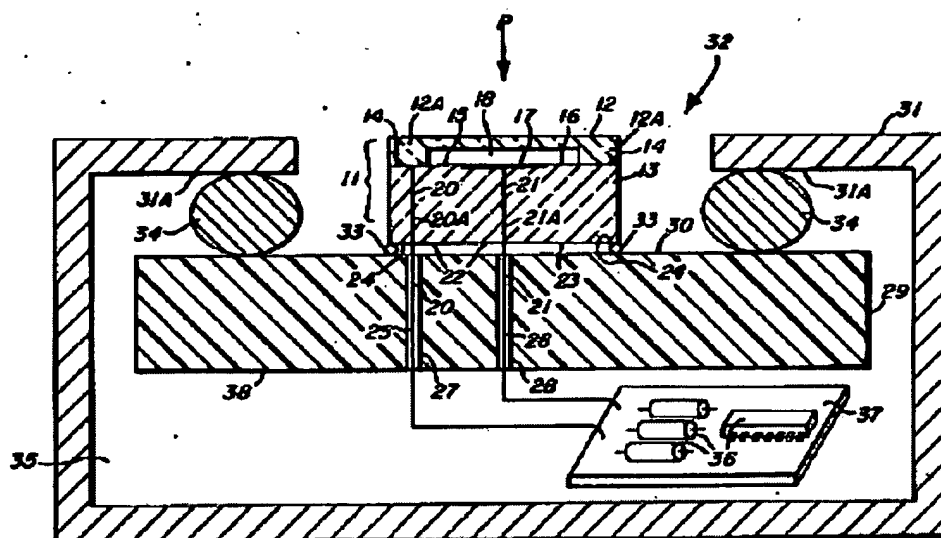
- (i) the screening-test task is a balance task (page. 22, claim 1);
- (ii) the at least one performance parameter is horizontal force applied (page 1, section 0010);
- (iii) the at least one performance statistical quantity corresponds to an average of a mathematical derivative of the total horizontal force applied (page 6-7, section 0063-0068); and
- (iv) comparing the at least one performance statistical quantity to the at least one reference statistical quantity includes determining whether the average deviates from zero by a predetermined threshold value (page 6-7, section 0063-0068).

Regarding claim 4, Eide further discloses a display device in communication with the computational device for indicating an instance wherein any of the ranks associated with a given one of the trials has fallen outside a reference range associated with the given trial (page 10, section 0085, (page 6-7, section 0063-0068); Regarding claim 25, Eide further discloses the display device displays a number corresponding to the number of times a performance of the

balance task by the subject has fallen outside the reference range (page 2, section 0062); Regarding claim 6, Eide further discloses associate with an average (page 7, unit 68); Regarding claim 7, Eide further discloses associate with an standard deviation (page 8, unit 77); Regarding claim 8, Eide further discloses associate with an standard error (page 7, section 0068, page 8, unit 77); Regarding claim 9, Eide further discloses associate with power spectrum (fig. 3a, 3b); Regarding claim 11, Eide further discloses associate with frequency histogram (fig. 2a, 2b, page 7, section 0068); Regarding claim 16, Eide further discloses display statistical value differ on display (fig. 2a, 2b, page 10, section 0085).

Eide does not disclose a force-plate, vertical, horizontal force applied to a force plate, Mrozack discloses a force plate (fig. 1, unit 32), vertical, horizontal force applied to a force plate (fig. 1, unit 32); in order to have a minimum sensor size and maximum ruggedness protection from any environment (Col. 7, Lines 1-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Eide to have the vertical, horizontal force applied to a force plate (fig. 1, unit 32); taught by Mrozack in order to have a minimum sensor size and maximum ruggedness protection from any environment (Col. 7, Lines 1-35).



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FIG. 1

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Eide and Mrozack are analogous art because they are from the same field of endeavor, use pressure sensor to detect change in pressure.

Allowable Subject Matter

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4. Claims 26, 27, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to teach regarding claim 26, related to stability factor including following a modified CTSIB protocol; regarding claim 27, rank order including the level of difficulty of the balance tasks; regarding claim 10, statistical represents a value associated with root mean square.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL


MICHAEL NGHIEM
PRIMARY EXAMINER